Cotton/Soybean Insect Newsletter

Volume 16, Issue #14 Edisto Research & Education Center in Blackville, SC 30 July 2021

Pest Patrol Alerts

The information contained herein each issue is available via text alerts that direct users to online recordings. I will update the short message often for at least as long as the newsletter runs. After a new message is posted, a text message is sent to alert users that I have recorded a new update. Users can subscribe for text message alerts for my updates in two easy steps. Step one: register by texting **pestpat7** to 97063. Step two: reply to the confirmation text you receive by texting the letter "y" to complete your registration. Pest Patrol Alerts are sponsored by Syngenta.

Updates on Twitter

When noteworthy events happen the in the field, I will be sending them out quickly via Twitter. If you want to follow those quick updates, follow me at **@bugdocisin** on Twitter.

News from Around the State

At the scouting workshop in Cameron, SC, yesterday, I saw a treatable population of soybean looper (SBL) with **Charles Davis**, county agent in Calhoun County, and **Jonathan Croft**, county agent in Orangeburg County. Despite the SBL infestation, soybeans and cotton in that area looked good.

Scouting Workshops and Field Days

The 2021 scouting workshops were a success. Thanks for attending.
Thank the following agents, as they made the events happen:

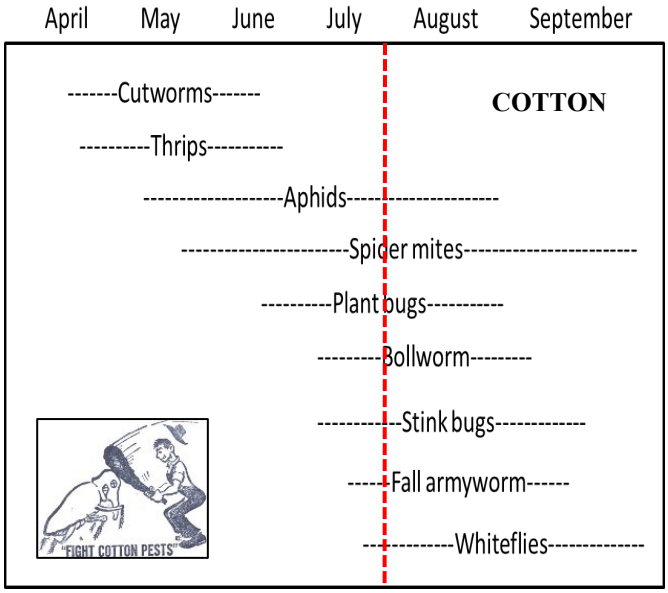
- **Hannah Mikell** and **Heather Benjamin** (28 July in Manning, SC)
- **Charles Davis** and **Jonathan Croft** (29 July in Cameron, SC)
- **Joe Varn** and **Marion Barnes** (30 July in Blackville, SC, at the Edisto REC)

We will also have an in-person field day here at the Edisto REC on 2 September 2021, with at least row crops (cotton, soybeans, peanuts, corn, grain sorghum, etc.) covered. Stay tuned for details.

Cotton Situation

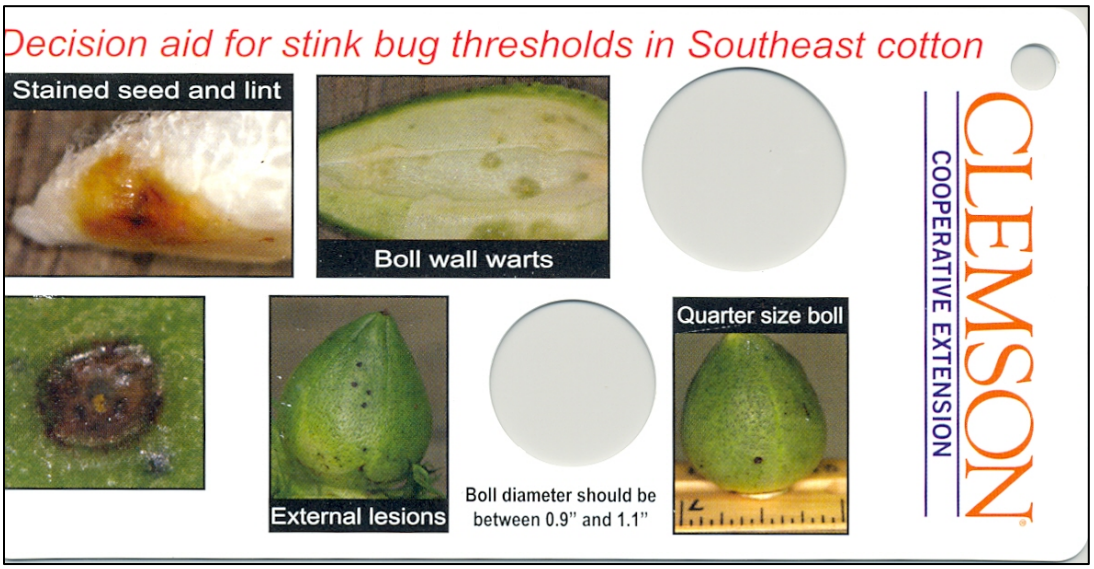
As of 25 July 2021, the USDA NASS South Carolina Statistical Office estimated that about 86% of the crop is squaring, compared with 75% last week, 73% at this time last year, and 82% for the 5-year average. About 57% of the crop is setting bolls, compared with 36% last week, 25% at this time last year, and 44% for the 5-year average. The conditions of the crop were 10% excellent, 70% good, 20% fair, 0% poor, and 0% very poor. These are observed/perceived state-wide averages.

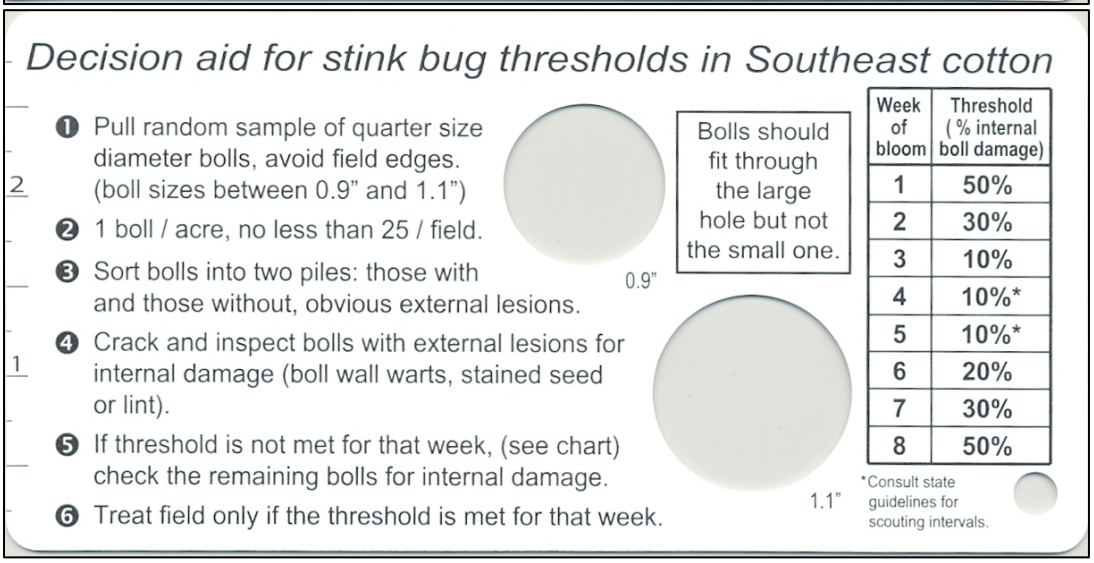
Cotton Insects



Captures of bollworm moths in my pheromone traps increased again this week and might continue up for next week. We will keep reporting the numbers. Moths are in the air, and larvae are easy to spot in some of my plots of non-Bt cotton. The photos here show injury to squares, and bolls. The small caterpillar was under the bloom tag feeding on the top of the small boll, and this happens frequently in Bt cotton, as the larvae can feed and survive on blooms because of lower concentrations of toxins there. When the bloom dries down, they move into the top of the boll with some size that often allows them to overcome the toxins in the boll. Take note of the moths flying around in fields you walk, and look for eggs and injury to squares, bolls, and blooms. Use our treatment thresholds of 3 or more large (>0.25 inch) larvae per 100 plants or 5% damage to squares or bolls. On 2-gene Bt cotton, you can also trigger when egg density pushes past 20 towards 50 eggs per 100 plants. Use 50+ eggs per 100 plants for 3-gene Bt cotton. More detailed recommendations for bollworm can be found in our 2021 Pest Management Handbook.

Most of our cotton is now in the 3rd, 4th, or 5th week of bloom, and stink bugs should be the primary focus of scouting efforts. I am including again this week photos of the cards we distributed years ago that help describe sampling methods for bolls and what percentage of feeding symptoms by week of bloom should trigger a spray for stink bugs. You should know the first week of bloom for all of your cotton fields. That is when every other plant has its initial flower. That is generally around 60 days after planting, depending on planting date, variety, temperature, accumulation of heat units, etc. The dynamic boll-injury thresholds for stink bugs are specified by week of bloom. Examine the same size bolls each week – I recommend pulling the largest but softest bolls you can find that will easily mash between your thumb and index finger to open. Examine 25 bolls, at a minimum, for each field, regardless of field size, and add a boll for each acre over 25 acres.

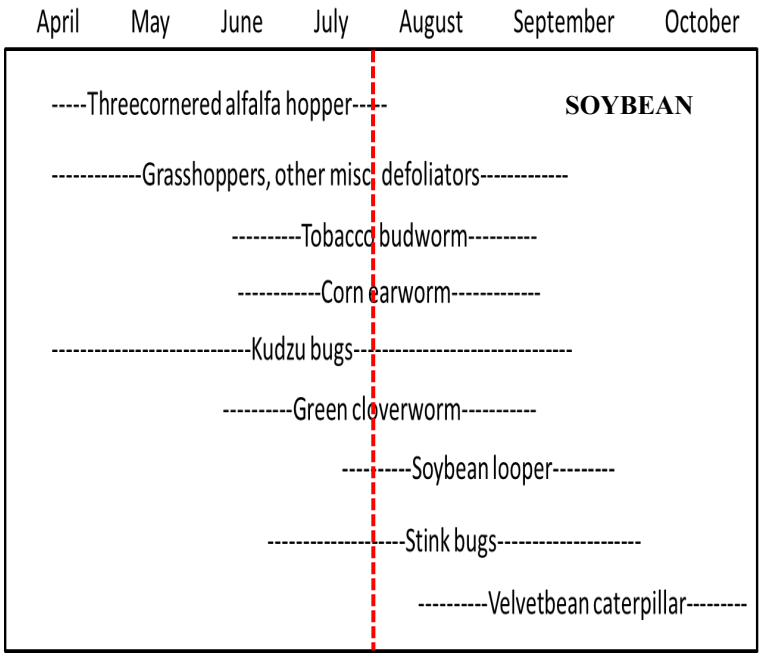




Aphids can be found in low numbers, but most of the populations have crashed due to the fungus. If you have yet to spray insecticides in your fields, the aphids were there to build up populations of natural enemies that are there now waiting on other pests to show up. This natural control helps us tremendously with bollworm, stink bugs, etc. **Spider mites** continue to be held back by the frequent rains. **Plant bugs** are becoming less important now as we transition into monitoring for and addressing stink bugs. If your fields have yet to bloom or they are still at first bloom or into the 1st or 2nd week of bloom, you still need to monitor for plant bugs. Keep plant bugs below 8 per 100 sweeps (or roughly 1 per 10 sweeps to keep the math simple) for pre-bloom sampling or 3 per 5-6 rowft using a black drop cloth post-bloom. If numbers exceed either of these thresholds AND square retention drops below 75%, you probably need to treat for plant bugs.

Soybean Situation

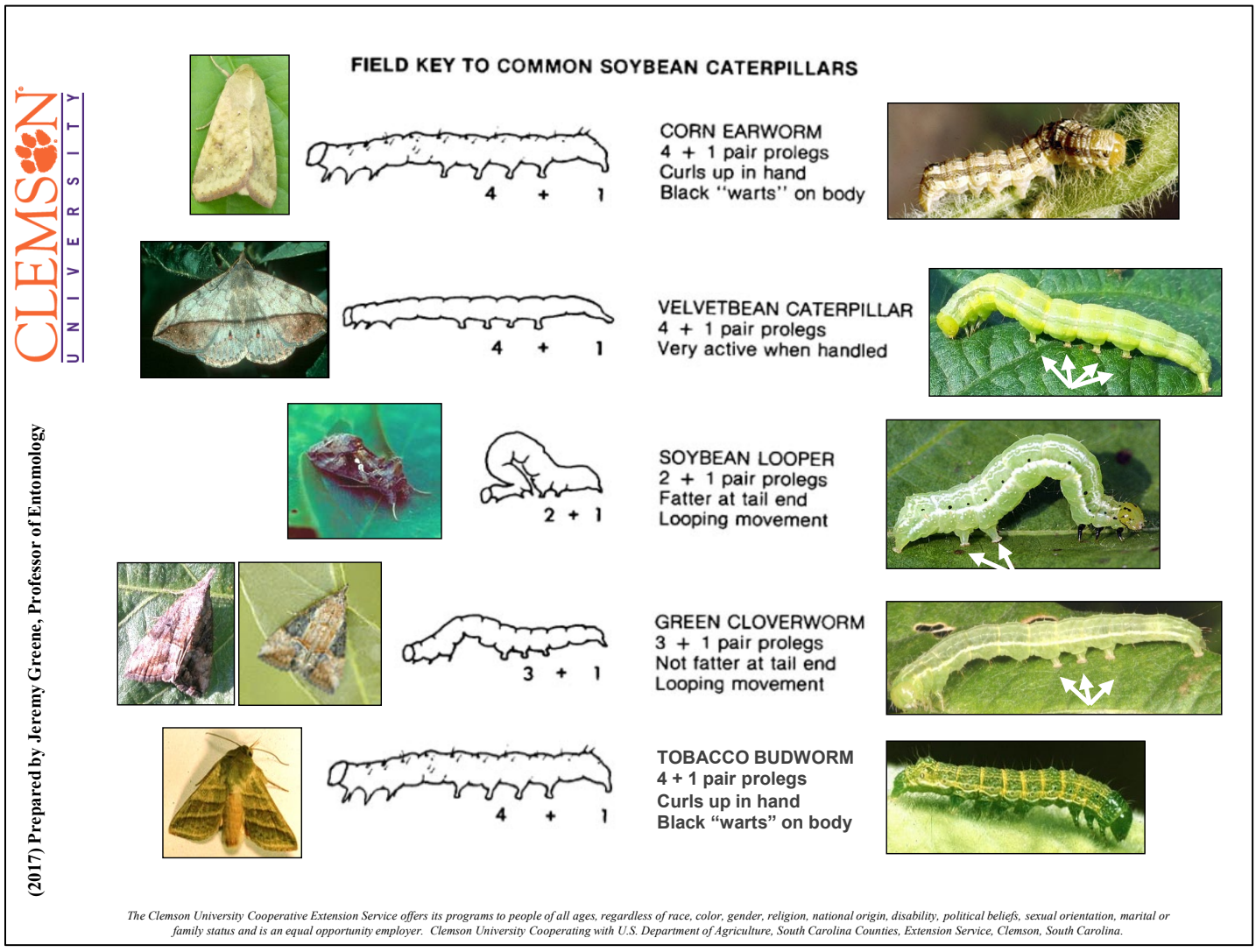
As of 25 July 2021, the USDA NASS South Carolina Statistical Office estimated that about 44% of the crop has bloomed, compared with 27% the previous week, 24% at this time last year, and 28% for the 5-year average. About 9% of the crop is setting pods, compared with 2% the previous week, NA% at this time last year, and NA% for the 5-year average. The conditions of the crop were 9% excellent, 84% good, 7% fair, 0% poor, and 0% very poor. These are observed/perceived state-wide averages.



Soybean Insects

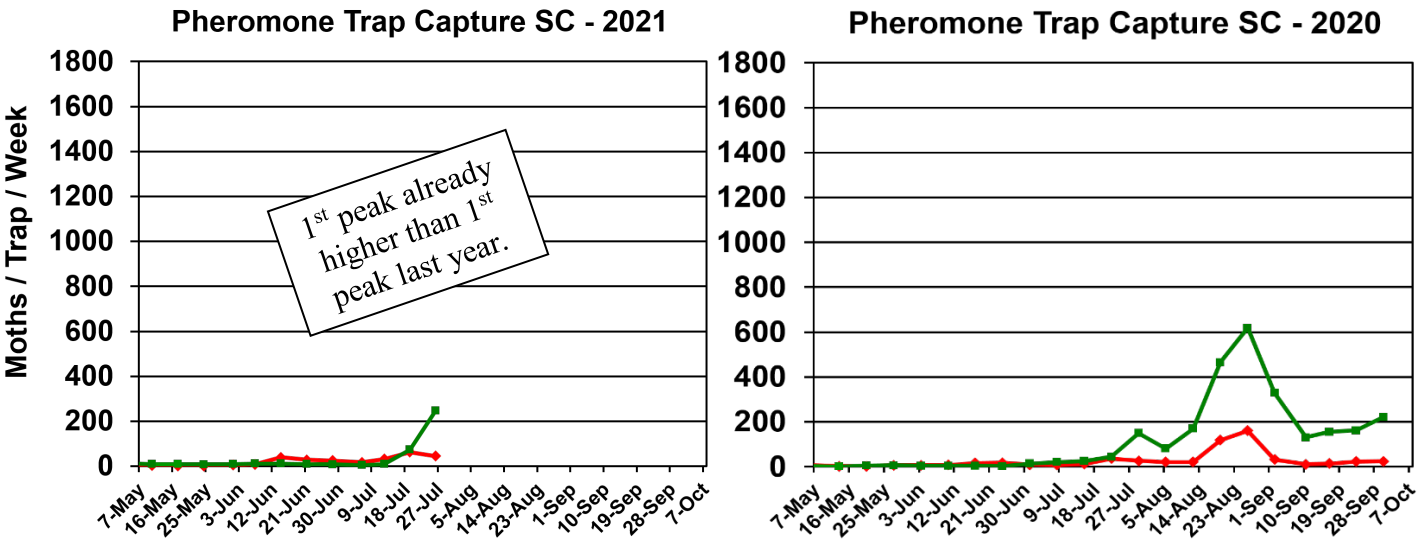
I observed a treatable population of soybean loopers in soybeans in Cameron, SC, yesterday (Thursday). This migratory species is "setting up shop" in selected fields. This species seems to prefer tall, lush soybeans. Also this week, we observed a few more velvetbean caterpillars, some green cloverworms, a few podworms, and plenty of kudzu bugs. In the next few weeks, I expect the insect activity in the crop to exponetially increase. As activity continues to increase in my pheromone traps here at Edisto REC, I expect that podworm pressure on soybeans will increase in the next week or two, and any soybeans flowering and setting pods will be at risk. We will keep monitoring the situation. Go scout your soybeans, particularly if they are flowering. Walk through and notice the moths you flush. You need to be able to identify the moths in order to know what is coming. However, do not get caught up in defoliating pests, such as the caterpillars, and ignore the most important pests of the crop that do not chew holes in leaves. Stink bugs are the number one insect pest group of soybeans in SC, and you have to do drop-cloth samples to measure their density to see if you have a treatable population.

As moth activity increases, deposited eggs will yield caterpillar pests on soybeans. It is good skill to be able to identify adult moths flying around in fields. Use this chart to study moth and caterpillar identification.

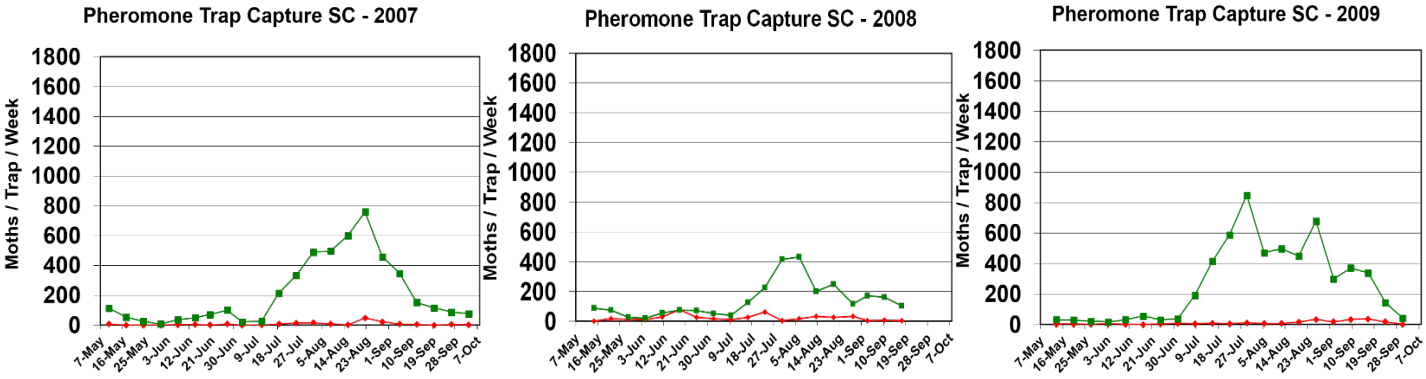


Bollworm & Tobacco Budworm

Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2007-2020 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these data as a measure of moth presence and activity in our local area near my research plots. The numbers are not necessarily representative of the species throughout the state.



Trap data from 2007-2019 are shown below for reference to other years of trapping data from EREC:



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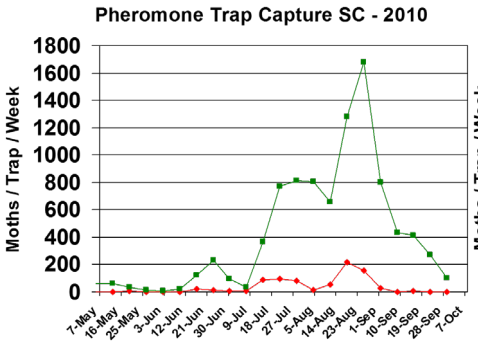

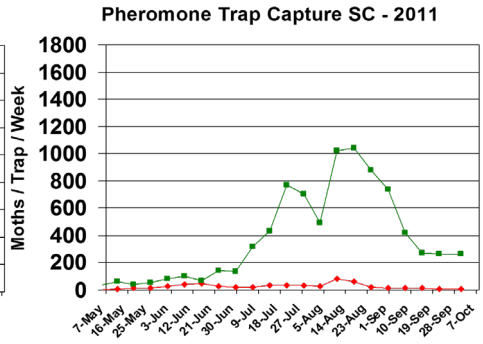

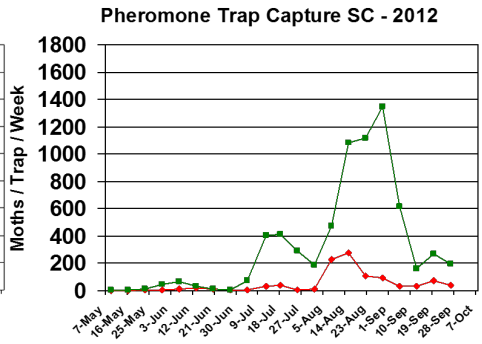

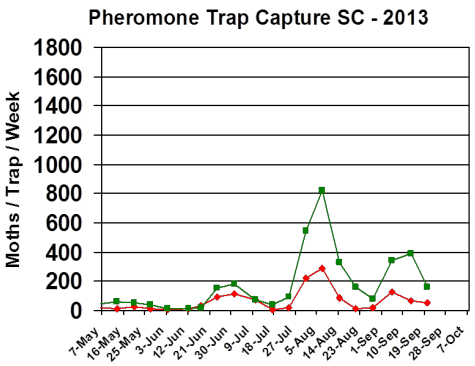

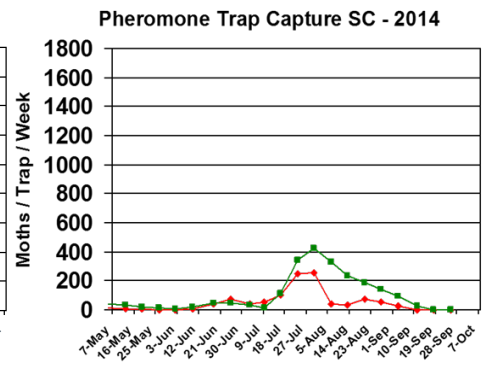

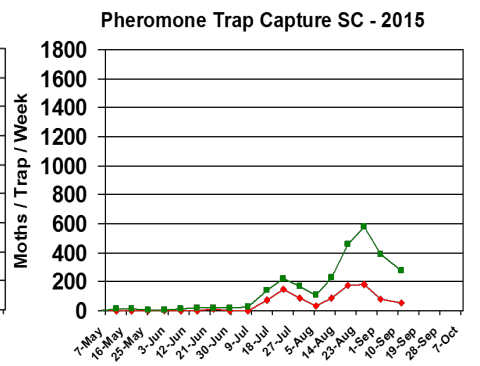

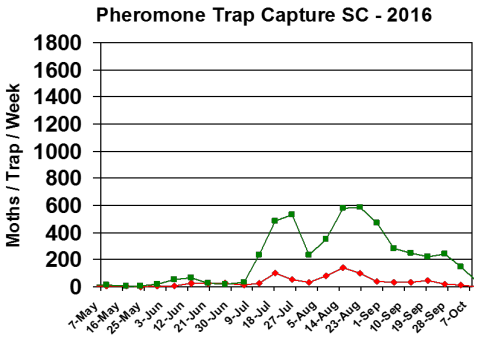

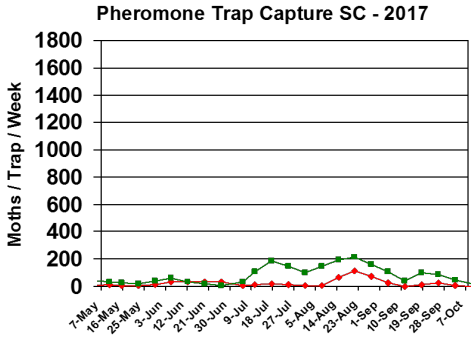

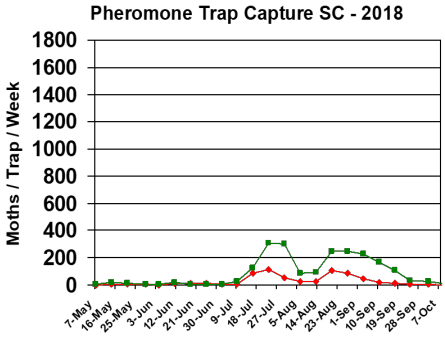

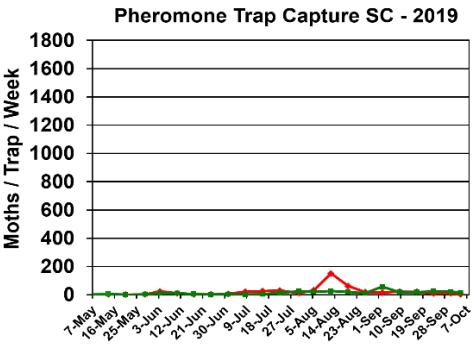

Pest Management Handbook – 2021

Insect control recommendations are available online in the 2021 South Carolina Pest Management Handbook at:
https://www.clemson.edu/extension/agronomy/pest%20management%20handbook.html

South Carolina Crops Blog

The SC Crops Blog contains content about production of major row crops at the following link, if you want more information: https://blogs.clemson.edu/sccrops/
Archived issues of the Cotton/Soybean Insect Newsletter can be viewed at a convenient link on the SCCrops page. Contact **Dr. Michael Plumblee**, if you have any questions about the blog.

Free Mobile Apps: "Calibrate My Sprayer" and "Mix My Sprayer"

Download our free mobile apps called "Calibrate My Sprayer" and "Mix My Sprayer" that help check for proper calibration of spraying equipment and help you with mixing user-defined pesticides, respectively, in custom units (available in both iOS and Android formats):
http://www.clemson.edu/extension/mobile-apps/

Need More Information?

For more Clemson University Extension information: http://www.clemson.edu/extension/

For historical cotton/soybean insect newsletters:
https://www.clemson.edu/extension/agronomy/cotton1/newsletters.html

Sincerely,

Jeremy K. Greene, Ph.D.
Professor of Entomology

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